Cardiology Scenarios

Scenario 1 of 6:
Emergency Department Services

HPI: A 50-year-old male presents to ER via EMS complaining of crushing substernal CP accompanied by SOB, nausea and diaphoresis. Pain radiates to neck. Symptoms started 1 hour ago. He is now lightheaded.

Past Medical History: HTN, noncompliant with meds. Occasionally smokes a cigar.

Review of Systems: As above. Denies previous chest pain or chest tightness, heaviness.

Physical Exam: Moderately obese middle aged male in distress, diaphoretic. BP= 80/50, P= 90, RR= 24. Cardiovascular exam has muffled heart sounds, JVD is present. Respiratory exam has clear breath sounds without crackles or rales. EKG is indicative of inferoposterior transmural ischemia with a 3mm ST elevation in II, III, aVF and V1.

ED Course: Rapid IVF with normal saline.

Clinical Impression: STEMI of right coronary artery

Disposition: Admit **-** Initiate STEMI protocol.

Scenario 2 of 6:
Emergency Department Services

HPI: Patient is a 50-year-old male who was admitted 3 weeks ago with an inferior STEMI and now presents via EMS with a 2-hour history of substernal chest pain, nonradiating, accompanied by shortness of breath and diaphoresis. In the previous admission, he had undergone coronary angiography which showed diffuse coronary disease but no lesions greater than 60%. He declined a cardiovascular surgical consult and was discharged with medical management and lifestyle changes. He has not been taking any medications. At the onset of chest pain, he was at the casino where he'd been smoking cigars and drinking alcohol for several hours.

Past Medical History: As above.

Review of Systems: As above.

Physical Exam: BP= 180/100, P= 110, RR= 22. Cardiovascular exam has rapid regular rate without murmurs, no apparent JVD, lungs are clear. EKG is consistent with anterior wall ischemia with ST elevations in aVR and V1 with a new RBBB.

ED Course: Nitroglycerin, pain meds, oxygen, STEMI protocol.

Clinical Impression: STEMI of anterior wall

Disposition: Admit - STEMI protocol.

Scenario 3 of 6:
Chief Complaint: Progressive dyspnea

HPI: A 32-year-old female, who is 1 month post-partum delivery of twins, presents with complaints of shortness of breath and fatigue. She also notes swelling in her feet. Denies cough but breathing is worse if she lies flat. Her pregnancy was complicated by pre-ecclampsia.

Past Medical History: As above.

Review of Systems: As above.

Physical Exam: BP= 112/75, P= 101, RR= 18. Cardiovascular exam is significant for JVD, a new 1/6 systolic murmur and a displaced apical impulse. She has crackles in both lung bases and +2 pre-tibial edema. ECHO shows enlarged heart with ejection fraction of 38%.

Assessment and Plan: Peripartum cardiomyopathy, start medications, counseling for risk of future pregnancies.

Scenario 4 of 6:
Reason for Visit: Worsening a-fib

HPI: Patient is a 40-year-old female who presents with complaints of worsening a-fib. Previously, episodes occurred infrequently, approximately once a month, were asymptomatic and lasted only a few minutes. Now, palpitations occur several times a month, can last hours and she becomes light headed and fatigued during the episodes. She states she is compliant with medications and denies increased caffeine or alcohol.

Past Medical History: Paroxysmal atrial fibrillation, on meds, no structural abnormality seen on TEE.

Review of Systems: As above.

Physical Exam: Well developed middle aged female in no acute distress. BP= 128/78, P= 82, RR= 12. Cardiovascular exam reveals regular rate and rhythm without murmur, clicks or rubs. Lungs are clear. There is no JVD or peripheral edema. EKG is NSR, unchanged from previous.

Assessment and Plan: Paroxysmal atrial fibrillation, increase medications, order ambulatory event monitor.

Scenario 5 of 6:
Chief Complaint: Worsening SOB

HPI: A 62-year-old male with a history of dilated, nonischemic cardiomyopathy (NYHA III) presents with complaints of worsening shortness of breath and decreased exercise tolerance over the last 3 months. He now requires 2 pillows to aid in breathing at night. If he stands for very long, his legs will have increased swelling. He denies chest pain and his AICD has not gone off.

Past Medical History: Dilated cardiomyopathy with AICD implant, on meds.

Review of Systems: As above.

Physical Exam: BP= 112/72, P= 72, RR= 16. There are no new murmurs on cardiovascular exam, no JVD is appreciated. Lungs have few crackles at bilateral bases. There is +2 ankle edema.

Assessment and Plan: Chronic systolic (congestive) heart failure, adjust medications.

Scenario 6 of 6:
Emergency Department Services

HPI: A 30-year-old woman with a history of IVDA presents to the ER complaining of weakness, myalgias, shortness of breath with a nonproductive cough for 1 week. Subjective fever.

Past Medical History: Last drug use approximately 3 days ago. Smoker. No medications.

Review of Systems: As above.

Physical Exam: Patient appears ill. Temp.= 102, BP= 122/72, P= 105, and RR= 23. Breath sounds are course. There is a grade 3/6 holosystolic murmur at the left sternal border that radiates to the right. Prominent V- wave is present. Murmur increases with inspiration. No pedal edema.

Laboratory studies show WBC of 14, ESR = 80. Chest x-ray shows multiple alveolar opacities in the right lung.

Blood cultures are obtained.

Clinical Impression: Tricuspid valve endocarditis with pulmonary septic emobli

Disposition: Admit to inpatient - broadspectrum antibiotics, TEE.